

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/786,373	02/24/2004	Aleksander Zelenski	004.0115	3393	
29906	7590 07/21/2006		EXAM	INER	
INGRASSIA FISHER & LORENZ, P.C.			RACHUBA, MAURINA T		
7150 E. CAMELBACK, STE. 325 SCOTTSDALE, AZ 85251			ART UNIT	PAPER NUMBER	
	•		3723		
				DATE MAILED: 07/21/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
057	10/786,373	ZELENSKI ET AL.
Office Action Summary	Examiner	Art Unit
	M Rachuba	3723
The MAILING DATE of this communication Period for Reply	appears on the cover sheet w	ith the correspondence address
A SHORTENED STATUTORY PERIOD FOR REWHICHEVER IS LONGER, FROM THE MAILING  - Extensions of time may be available under the provisions of 37 CF after SIX (6) MONTHS from the mailing date of this communication  If NO period for reply is specified above, the maximum statutory pe  - Failure to reply within the set or extended period for reply will, by s Any reply received by the Office later than three months after the r earned patent term adjustment. See 37 CFR 1.704(b).	G DATE OF THIS COMMUNI R 1.136(a). In no event, however, may a n. eriod will apply and will expire SIX (6) MON tatute, cause the application to become Al	CATION. reply be timely filed NTHS from the mailing date of this communication. BANDONED (35 U.S.C. § 133).
Status		
1) Responsive to communication(s) filed on 1	11 May 2006.	
2a) ☐ This action is <b>FINAL</b> . 2b) ☑	This action is non-final.	
3) Since this application is in condition for all closed in accordance with the practice und	•	• •
Disposition of Claims		
4)⊠ Claim(s) <u>1-13 and 15-46</u> is/are pending in	the application.	
4a) Of the above claim(s) 15-23 is/are with		
5) Claim(s) is/are allowed.		
6)⊠ Claim(s) <u>1-13 and 24-46</u> is/are rejected.		
7) Claim(s) is/are objected to.		
8) Claim(s) are subject to restriction a	nd/or election requirement.	
Application Papers		
9)☐ The specification is objected to by the Exar	miner.	
10)⊠ The drawing(s) filed on <u>30 January 2006</u> is	/are: a)⊠ accepted or b)⊡ c	bjected to by the Examiner.
Applicant may not request that any objection to	the drawing(s) be held in abeya	nce. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the co	•	
11) The oath or declaration is objected to by th	e Examiner. Note the attache	d Office Action or form PTO-152.
Priority under 35 U.S.C. § 119		
12) Acknowledgment is made of a claim for for a) All b) Some * c) None of:	eign priority under 35 U.S.C.	§ 119(a)-(d) or (f).
<ol> <li>Certified copies of the priority document</li> </ol>	nents have been received.	
2. Certified copies of the priority docun		
3. Copies of the certified copies of the	• •	received in this National Stage
application from the International Bu	, , , , , , , , , , , , , , , , , , , ,	d
* See the attached detailed Office action for a	i list of the certified copies not	received.
Attachment(s)		
1) Notice of References Cited (PTO-892)		Summary (PTO-413)
<ul> <li>2) Notice of Draftsperson's Patent Drawing Review (PTO-948</li> <li>3) Information Disclosure Statement(s) (PTO-1449 or PTO/SI</li> </ul>	B/08) 5) Notice of I	s)/Mail Date Informal Patent Application (PTO-152)
Paper No(s)/Mail Date	6)  Other:	·

Application/Control Number: 10/786,373 Page 2

Art Unit: 3723

## **DETAILED ACTION**

## Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11 May 2006 has been entered.

#### Election/Restrictions

2. Claims 15-23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or Claims 15-23 are withdrawn from further consideration pursuant to 37 CFR linking claim. Election was made without traverse in the reply filed on 12 October 2005.

#### Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 4. Claims 34-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Holister et al, 2, 418,770. Please refer to figures 1, 4 and 16 and their descriptions especially. Note that the lower grinding wheel has a working surface disposed parallel and in vertical opposition to the working surface of the upper grinding wheel. It is noted

Application/Control Number: 10/786,373 Page 3

Art Unit: 3723

that applicant has not claimed that the upper and lower working surfaces are directly opposed.

# Claim Rejections - 35 USC § 103

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
- 7. Claims 1, 2, 6-10, 24-27, 29, 42, 43, 45 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holister et al '770 in view of Kahn, 6,196,907. '770 does not disclose the fluid supply system claimed. '907, figures 1-3 and 11, in a similar device, teaches providing the upper grinding wheel with a spindle 12 having a channel 13, the upper polishing tool comprising a plurality of first conduits 71, 72, 73 each having a first orifice and a second orifice, the first orifice disposed at the first working surface and the second orifice in fluid communication with the channel of the spindle; a

Application/Control Number: 10/786,373

Art Unit: 3723

rotary coupler 60 coupling the spindle and upper wheel, the coupler comprising a plurality of fluid distribution channels 66, 67, 68, each channel in fluid communication at a first end of the channel of the spindle and in fluid communication at a second end with the second orifice of one of the plurality of first conduits of the upper wheel; a driver hub 50, 55 mounted to the spindle and comprising at least a portion of each of the plurality of fluid distribution channels; a plurality of second conduits 52, the first end coupled to the second end of one of the plurality of distribution channels and the second end coupled to the second orifice of one of the plurality of first conduits; an upper wheel support member 40 comprising a plurality of third conduits, a first end of each of the plurality of third conduits in fluid communication with the second end of one of the plurality of second conduits and a second end of each of the plurality of third conduits in fluid communication with the second orifice of one of the plurality of first conduits; a rotary lead through member 20 mounted to the spindle and configured to permit the spindle to rotate relative thereto, and having at least one second conduit in fluid communication with the channel of the spindle; the second conduit of the lead through member connected to a fluid source. It would have been obvious to one of ordinary skill in the art to have provided '770 with the fluid supply structure taught by '907, column 7, lines 12-14, to supply a uniform amount of fluid to the interface between the work piece and tool, to aid in processing.

Page 4

8. Claims 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holister '770 in view of Cesna, 5,595,529. '770 does not disclose the rotary drive mechanism comprising at least a first pulley and a second pulley and comprising a drive

Application/Control Number: 10/786,373

Art Unit: 3723

belt configured to cause rotational motion of the first pulley upon rotation of the second pulley; the carriage member coupled to at least two linear ball bearing slide assemblies, each mounted to one of said two support members for effecting vertical movement of the carriage member; or the vertical drive mechanism comprises a pneumatic cylinder, a hydraulic cylinder, or an air/oil cylinder. '529, in a similar tool, teaches driving the spindle with a belt and pulley system, the carriage member coupled to linear ball bearing slide assemblies each mounted to the support members, and an air cylinder to move the carriage vertically. It would have been obvious to one of ordinary skill in the art to have provided '770 with the pulley drive system taught by '529, as an old and well known rotary drive system. Further, '529 teaches providing linear ball bearings and an air cylinder to connect the carriage to the supports and to reciprocate the carriage on the supports. It would have been obvious to one of ordinary skill in the art to have provided '770 with the bearings and reciprocating drive taught by '529, column 9, lines 23-50, to allow precise movement of the carriage relative to the support.

Page 5

9. Claims 3-5, 11-13, 28, 30-33 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holister et al, '770 in view of Kahn '907 as applied to claims 1-10, 24-29 and 42-46 above, and further in view of Cesna, '529. '770 as modified by '907 does not disclose a universal joint mounted to the driver hub, a housing mounted to the universal joint wherein the upper abrading wheel is attached to said housing; the rotary drive mechanism comprising at least a first pulley and a second pulley and comprising a drive belt configured to cause rotational motion of the first pulley upon rotation of the second pulley; the carriage member coupled to at least two linear ball

bearing slide assemblies, each mounted to one of said two support members for effecting vertical movement of the carriage member; or the vertical drive mechanism comprises a pneumatic cylinder, a hydraulic cylinder, or an air/oil cylinder. '529, in a similar device, teaches providing a drive hub with a universal joint, a housing mounted to the universal joint and the tool attached to the housing. It would have been obvious to one of ordinary skill in the art to have provided '770 with the universal joint structure taught by '529, column 9, lines 57-59, to allow the upper grinding tool to remain parallel with the lower tool. '529 also teaches driving the spindle with a belt and pulley system, the carriage member coupled to linear ball bearing slide assemblies each mounted to the support members, and an air cylinder to move the carriage vertically. It would have been obvious to one of ordinary skill in the art to have provided '770 with the pulley drive system taught by '529, as an old and well known rotary drive system. Further, '529 teaches providing linear ball bearings and an air cylinder to connect the carriage to the supports and to reciprocate the carriage on the supports. It would have been obvious to one of ordinary skill in the art to have provided '770 with the bearings and reciprocating drive taught by '529, column 9, lines 23-50, to allow precise movement of the carriage relative to the support.

# Response to Arguments

10. Applicant's arguments with respect to claims 1-13, and 24-46 have been considered but are most in view of the new ground(s) of rejection.

Art Unit: 3723

# Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M Rachuba whose telephone number is 571-272-4493. The examiner can normally be reached on Monday-Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 571-272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

> M Rachuba Primary Examiner /

Art Unit 3723